CIRCULAR ECONOMY APPLIED TO THE CONSTRUCTION OF ROADS
CEDEX, WHO WE ARE

MULTIDISCIPLINARY technical support
SPECIFIC RESEARCH CENTRE DEVOTED TO ROAD PAVEMENTS

- Pavement design.
- Maintenance and rehabilitation.
- Functional and structural pavement characteristics.
- Road materials.
- Environmental issues related to roads.
WHAT IS A CIRCULAR ECONOMY?
WHAT IS A CIRCULAR ECONOMY APPLIED TO ROADS?

- Minimize residual waste
- Recycle and re-use
- Fewer materials
- Optimized Design
- Greener transport
- New construction techniques
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There are many things on-going...

- New materials
- Recycled aggregates
- Reduced RR
- Sustainable concrete
- Modularity
- Ultra-thin layers
- Warm and cold mix asphalts

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Great ideas, but also.....

VALIDATION AND ASSESSMENT IS NEEDED
SO THAT THEY CAN BE IMPLEMENTED
SOME PROJECTS WHERE INNOVATIONS THAT DIRECTLY HAVE TO DO CIRCULAR ECONOMY ARE BEING DEVELOPED, VALIDATED AND ASSESSED
Half-warm bituminous mixtures efficiently recycled at rates of 70% and 100%

OBJECTIVE: PRE-NORMATIVE RESEARCH
New materials: Validating structural and functional behaviour

**OBJECTIVE: PRE-NORMATIVE RESEARCH**
Recycled materials: Validating road performance

Characterization of municipal solid waste incinerator bottom ash (MIBA) as soil stabilized with cement and soil cement

OBJECTIVE: VALIDATION OF MIBA AS CONSTRUCTION MATERIAL

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Consorci de Reciclatge de Mallorca

Departament de Medi Ambient i Natura

Departament d’Urbanisme i Territori

TIRME

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Characterization of municipal solid waste incinerator bottom ash (MIBA) as soil stabilized with cement and soil cement

OBJECTIVE: VALIDATION OF MIBA AS CONSTRUCTION MATERIAL
Recycled aggregates: Environmental performance

Dirección General de Calidad y Evaluación Ambiental y Medio Natural (DGCEAMN)

OBJECTIVE: ENVIRONMENTAL ASSESSMENT METHODOLOGY
OBJECTIVE: PROPOSE SPECIFIC DATA BASES AND METHODOLOGY FOR LCA
CONSIDERATIONS RELATED TO CLIMATE CHANGE

Integrated climate adaptation service tools for improving resilience measure efficiency

OBJECTIVE: APPRAISE CLIMATE SERVICE INFORMATION
SOME FINAL REMARKS

- Circular economy applied to roads means optimize designs and construction materials.
- There is a lot of R+I going on.
- If we want these new developments to reach the market (bridge the gap), validation and expert assessment is needed.
- CEDEX is already taking part in a wide range of projects with the purpose of contributing to foster this transition towards a Circular Economy.
Thank you very much for your kind attention!

Should you need some more information, do not hesitate to contact me

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